



## PREVALENCE AND RISK FACTORS OF OCCUPATIONAL HAZARDS AMONG THE WORKERS WORKING IN DIFFERENT, FACTORIES, INDUSTRIES AND HEALTH CARE SETTINGS: A REVIEW

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**ABSTRACT** Any personal injury, sickness, or death caused by an employment accident is referred to as an occupational injury. These hazards can be categorized as physical (accidents and injuries), biological (diseases like influenza, HIV, Anthrax etc.), psychological (stress, anxiety, depression), chemical hazards (exposure to acids and pesticides), and environmental hazards (unsafe drinking water, inadequate sanitation, hazardous healthcare waste, etc.). Occupational injuries are more widespread among workers in numerous sectors, factories, and health-care organizations and they constitute a critical worldwide health issue affecting the majority of people in various occupations. As a result, the current review sought to evaluate the prevalence, pattern, and risk factors of occupational hazards experienced by workers in a variety of situations. Searches for relevant articles were conducted in four electronic databases using a broad range of search terms.

**KEYWORDS** : occupational health, occupational disease, occupational injuries, health care workers and risk factors of occupational hazards

### Introduction

Any personal injury, sickness, or death caused by an employment accident is referred to as an occupational injury. (Stanaway et al., 2018). It is an unforeseeable event that occurs as a result of the presence of conditions or actions that may cause damage and obstruct the pursuit or continuation of an action. Work-related accidents are the world's third most prevalent cause of mortality, second only to traffic accidents, and one of the biggest health-related, social, and economic risk factors in both developed and developing countries, according to published statistics. (Mahmoudifar & Seyedamini, 2017). These hazards can be categorized as physical (accidents and injuries), biological (diseases like influenza, HIV, Anthrax etc.), psychological (stress, anxiety, depression), chemical hazards (exposure to acids and pesticides), and environmental hazards (unsafe drinking water, inadequate sanitation, hazardous healthcare waste, etc.). As per the World Health Organization (WHO), over 70 percent of adult men and up to 60 percent of adult women enter the global workforce each year, with an extra 40 million adults. An occupational hazard is a situation at work that might cause disease or even death. (Tiwarly & Gangopadhyay, 2011)

According to the International Labour Organization (ILO), one person dies every 15 seconds in globally as a result of work-related accidents and illnesses, and most figures show that the average cost of accidents and illnesses accounts for 4% of GDP in some countries. (Aghakhani et al., 2017)

Occupational dangers are increasing every day, with negative consequences. Occupational risks are widely recognized as one of the primary issues confronting emerging countries. (Stacey et al., 2017) According to studies, occupational hazards are particularly high among nurses and other health-care workers. Other task-related dangers, aside from those that are well-known, such as needle prick injuries, are under-recorded by health-care personnel. Therefore knowledge and awareness of occupational hazards plays a key role in prevention of hazards in the working environment. (Karki, 2018)

Millions of healthcare employees suffer from work-related diseases and accidents, according to the International Labour Organization (ILO), and many are exposed to occupational risks. Healthcare and occupational health and safety professionals are working to enhance awareness of the risk factors and importance of workplace health and safety within this demographic. (ILO, 2019)

Individuals who work in the welding industry are susceptible to a variety of diseases and injuries. More than one million people are projected to be employed in the welding industry at this time. Welders are considered one of the most underappreciated groups of employees who face health and safety issues. Because of industrialization, the framework of occupational health and safety services, which includes welding staff, is not yet strong enough to handle the growing demands for workers' health. (Beyene, 2019)

In India, there are many occupational injuries across a variety of

industries, and the number of reports on occupational injuries is rising. Despite the public and private occupational health and safety management strategies that have been implemented in recent years to prevent occupational injuries, the number of injuries has increased. Their vulnerability is mostly caused by a lack of training, insufficient information, and ignorance of occupational hazards to one's health and safety, a lack of resources, or the use of personal protection apparatus Personal Protective Equipment (PPE). They are least concerned with the safety precautions required for their employment, as well as being easily exposed to dangers, both chemical and physical. The lack of understanding and Occupational health risks are directly related to awareness of with the workers' decreased use of Personal Protective Equipment (PPE). (Jobin et al., 2021)

Occupational injuries are more wide spread among workers in numerous sectors, factories, and health-care organizations and they constitute a critical worldwide health issue affecting the majority of people in various occupations. As a result the current study aims to fill this gap by exploring the prevalence and risk factors and knowledge regarding preventive measures occurrence of accidents among workers working in various industries and factories in order to inform them about the risk factors and effective causes of occupational accidents in their work environment and make them more sensitive about taking preventive strategies more seriously. The right control measures for eliminating or reducing work-related accidents while increasing safety and productivity can be achieved by identifying workplace risk factors. The insights in this review provide a valuable reference for policy makers in establishing goals to deal with workplace hazards.

**METHODOLOGY:** Total 14 numbers of relevant original descriptive (cross-sectional) studies of recent five years restated to prevalence, risk factor of occupational hazards among the workers working in different, factories, industries and health care settings were selected for this present review. This study conducted a broad literature search using keywords such as occupational health, occupational disease, occupational injuries, and health care workers, risk factors of occupational hazards. The sources for collection of the information were PubMed, Scopus, Medical Literature Analysis and Retrieval System Online (MEDLINE) & Cumulative Index to Nursing and Allied Health Literature (CINHAL). Included research studies on related topic were collected from 2017 onwards till 2022.

SL NO	INCLUSION CRITERIA	EXCLUSION CRITERIA
1.	Original studies related to the topic of interest	Article those were not original and confused content
2.	Accessible articles from Scopus index journals	Article from Non listed journals
3.	Collected recent studies published from 2017 till 2022	Studies for with only abstracts are available.

### Result

The fundamental goal of this research is to determine the extent of occupational exposure and the prevalence of occupational hazards among workers in diverse factories, industries, and health-care settings. Musculo skeletal illnesses, hearing loss, vibration, and contact dermatitis are among the most common occupational health problems among workers, according to the research. These issues can be avoided by pre-testing equipment, products, and processes, as well as exposure monitoring and risk assessment. (Sathya & Prakash, 2018)

Studies look at healthcare employees' exposure to, prevalence of, and associated risk factors for occupational health hazards. Psychosocial and organizational hazards were the most common occupational exposures among healthcare employees in the previous 12 months (85.93 %). Physicians (93.7%) and nurses (89.2%) were the most common victims of occupational exposure. (Shi et al., 2020)

The prevalence of psychosocial threats, mechanical hazards, biological hazards, and physical hazards was 140 (92.7%), 128 (84.8%), 100 (66.2%), and 100 (66.2%), respectively. Concerning workplace dangers, approximately 29.8% had high knowledge and 37.7% had poor knowledge. (Amare et al., 2021)

According to a survey, 57.91% of workers suffer from injuries. The most common and least common injuries were open wounds (37.29%) and fractures (6.78%), respectively. Workers' proximal (age, gender, and income) and distal (work structure, trade specialisation, working hours, job/task location, and monthly off days) characteristics were both found to be risk factors for occupational accidents among frontline construction workers. (Amissah, 2019)

### Conclusion

Conclusion drawn from these studies are based on prevalence, risk factors and level of knowledge and awareness regarding prevention of occupational hazards among the workers working in various industries, factories and health care sectors.

Study showed that the magnitude of Occupational injury was high among the construction workers. Higher educational training, Utilization of Personal Protective Equipments (PPE) and safety training will lower the prevalence of occupational injuries among the building construction workers. Therefore management should more focus on implementing those kinds of interventions which will promote the well being of the workers.

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